

REMARKS

Claims 1-12 are pending. By this Amendment, claims 1 and 7 are amended.

Reconsideration in view of the above amendments and following remarks is respectfully requested.

Entry of the amendment is proper under 37 CFR §1.116 since the amendment: (a) place the application in condition for allowance (for the reasons discussed herein); (b) do not raise any new issue requiring further search and/or consideration (since the amendment amplify issues previously discussed throughout prosecution); (c) satisfy a requirement of form asserted in the previous Office Action; (d) do not present any additional claims without canceling a corresponding number of finally rejected claims; and (e) place the application in better form for appeal, should an appeal be necessary. Entry of the amendment is thus respectfully requested.

Applicants appreciate the courtesies extended to Applicants' representative during the February 11 interview.

I. The Claims Define Allowable Subject Matter

The Office Action rejects claims 1-12 under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 5,157,411 to Takeoshi et al. This rejection is respectfully traversed.

The applied art does not disclose that the discharge quantity and flight speed of the function liquid discharged from the nozzles is regulated for each group by voltage level applied to piezoelectric elements corresponding to the nozzles, as claimed in claim 1 and similarly claimed in claim 7.

Support for the claim amendments is found in the specification. Specifically, controlling the discharge quantity by the voltage level is disclosed at page 21, line 4 of the specification. The flight speed is also controlled as disclosed at page 22, line 22. Finally, piezoelectric elements are disclosed at page 11, line 19.

In contrast to the claimed invention, Takeoshi discloses the pulse width is controlled in order that the diversion in the ejection critical voltage of recording elements is restrained (see column 4, lines 51-61). The reason for controlling pulse-width, not voltage, is that an excessive voltage shortens the life of the recording head utilizing thermal energy (see column 4, lines 8-50). For this reason, no one of ordinary skill in the art controls voltage for uniforming the discharge quantity in such a thermal head.

Further, Takeoshi also fails to disclose controlling flight speed of the functional liquid. The present invention controls the flight speed of the functional liquid. As such, the manufacturing speed of the functional liquid applied substrate is raised because the impact position of the functional liquid on the substrate is not displaced even when moving the mounting table at higher speeds (see the specification at page 22, line 24 through page 23, line 5). The applied art does not teach, disclose or even suggest such a feature.

For at least the reasons outlined above, Applicants respectfully submit that the applied art does not disclose all of the features recited in claims 1 and 7. Thus, the applied art does not anticipate the subject matter of claims 1-12. Withdrawal of the rejection of claims 1-12 under 35 U.S.C. §102 is respectfully solicited.

III. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is requested to contact the Applicants' representative at the telephone number listed below.

Respectfully submitted,



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Date: June 27, 2003

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